

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Statutory Review of the System
for Regulating Rates and Classes
for Market Dominant Products

Docket No. RM2017-3

SUPPLEMENTAL DECLARATION OF
LYUDMILA Y. BZHILYANSKAYA FOR THE PUBLIC REPRESENTATIVE

(March 1, 2018)

I. BACKGROUND

My name is Dr. Lyudmila Y. Bzhilyanskaya, and I am a Senior Econometrician for the Postal Regulatory Commission (PRC). In this docket, I have been assisting the Public Representative with the economic and technical issues related to the “review of the market dominant ratemaking system as required by 39 U.S.C. § 3622.”¹ One of the objectives (identified as Objective 1) requires the Postal Service’s ratemaking system to “maximize incentives to reduce costs and increase efficiency.” 39 U.S.C. § 3622(d)(3). In Order No. 3673, the Commission presented a preliminary definition for this objective, as well as concepts for its potential measurement. Order No. 3673 at 4. On March 20, 2018, I submitted a declaration with analytical research and recommendations related to Objective 1.² On December 1, 2017, the Commission presented its findings regarding the 39 U.S.C. § 3622 Review, and, simultaneously, initiated a rulemaking process.³

¹ See Advance Notice of Proposed Rulemaking on the Statutory Review of the System for Regulating Rates and Classes for Market Dominant Products, December 20, 2016, at 12 (Order No. 3673).

² Declaration of Lyudmila Y. Bzhilyanskaya for the Public Representative, March 20, 2017 (Bzhilyanskaya Decl.). See also Comments of the Public Representative, March 21, 2017 at 26-28 (PR Comments).

³ See Order on the Findings and Determination of the 39 U.S.C. § 3622 Review, December 1, 2017 at 9, 275 (Order No. 4257); Notice of Proposed Rulemaking for the System for Regulating Rates and Classes for Market Dominant Products, December 1, 2018 at 2 (Order No. 4258).

In Order No. 4257, the Commission concluded that the “system as a whole has not achieved the objectives of the PAEA.” Order No. 4257 at 275. In Order No. 4258 the Commission indicated that the purpose of the instant rulemaking is “to propose...modifications to existing regulations or adopt...an alternative system through new regulations” to achieve the objectives of section 3622(b). Order No. 4258 at 2.

II. PURPOSE AND SCOPE

Within Objective 1, the Commission identified “three measurable key concepts”: maximization of incentives, reduction of costs and increases in efficiency. Order No. 4257 at 134 *citing* Order No. 3673 at 4. Considering the overall complexity of these concepts, in my initial declaration, I primarily focused on the “increase efficiency” concept and devoted my analytical work to the efficiency measurement. Bzhilyanskaya Decl. at 2-13. In Order No. 4257, discussing Objective 1 with respect to the increased efficiency concept, the Commission applied the considerations and made the conclusions summarized below:

- considered operational efficiency and pricing efficiency separately (Order No. 4257 at 48, 134, 183);
- applied allocative efficiency and Efficient Component Pricing (ECP) to measure pricing efficiency (Order No. 4257 at 135);
- found that the rulemaking system did not increase pricing efficiency during the PAEA era (Order No. 4257 at 4, 48, 139, 142, 145-146, 274);
- used Total Productivity Factor (TFP) as the determinative metric for operational efficiency, but also considered other measures, *e.g.*, Labor Productivity Index (LPI) and workhour analysis (Order No. 4257 at 206, 211-219);
- found that the operational efficiency increased during the PAEA era, but noted a measurable slowdown in efficiency growth in recent years (Order No. 4257 at 219-226, 248, 276); and
- determined that the system has not maximized operational efficiency gains (Order No. 4257 at 148, 198-201, 219, 222-226, 248, 276).

In my current declaration, I am reviewing the rulemaking proposal presented In Order No. 4258, as it relates to Objective 1 considering these findings. In Order No. 4258, by proposing the solutions to achieve the PAEA objectives, “the Commission has

specifically focused on Objective 1.” Order No. 4258 at 56. In light of my analysis and recommendations provided in my initial declaration, and based on the determinations in Order No. 4257, I will primarily discuss the Commission’s proposal related to the Total Factor Productivity (TFP) data as a measure of operational efficiency and the use of TFP growth to set up an operational efficiency-based rate authority.

III. TRANSPARENCY OF THE TOTAL FACTOR PRODUCTIVITY DATA

In my initial declaration, I suggested that the Postal Service’s annual [TFP] filings should be more transparent. Bzhilyanskaya Decl. at. 5-7. In Order Nos. 4257 and 4258, the Commission declared its intention “to utilize the rules set up in 39 C.F.R. § 3050.2, and requested the Postal Service to support the annual TFP tables with “documentation of periodic reports (e.g., calculations and links within and between spreadsheets) to ensure that TFP is measured and calculated in a transparent manner.” Order No. 4257 at 207; Order No. 4258 at 63. I appreciate the Commission’s recommendations and strongly believe that by following them, the Postal Service’s TFP filings will be more transparent for both specialists and the general public.

The Postal Service provided the most recent TFP tables in Docket No. ACR 2017, in Response to CHIR No. 2, question No. 4.⁴ However, despite the Commission’s request to provide “all input and data calculations used to derive the FY 2017 TFP,” and to include “all supporting workpapers” with its filing,⁵ the presentation of the Postal Service’s spreadsheets (including their design and structures) is virtually the same as in the previous years.⁶ The Postal Service’s FY 2017 TFP filing does not contain any links or formulas connecting multiple spreadsheets. The only visible difference from prior years’ filings is a removal of the reference to the CRA and ICRA from the cover page. Considering that the Commission issued its Order No. 4257 very recently, it is logical to

⁴ Docket No. ACR 2017, Responses of the United States Postal Service to Questions 1-19 of Chairman’s Information Request (CHIR) No. 2, question 4, January 17, 2018, file CHIR.2.Q.4.FY17.TFP.Table.xlsx (USPS, Annual TFP Tables, FY 2017 TFP).

⁵ Docket No. ACR 2017, Chairman Information Request No. 2, question 4, January 10, 2018.

⁶ *Compare* USPS, Annual TFP Tables, FY 2017 TFP *with* USPS Annual Tables, FY 2016 TFP (Total Factor Productivity), March 1, 2017, file Table Annual 2016 public (2016 CRA).xlsx.

assume that the Postal Service has not updated a presentation of its annual TFP tables due to the time limitation. Presumably, by March 1 of next year, the Postal Service will follow the Commission's directives and make the presentation of TFP tables more transparent.

With regard to the description of the methodology underlying the Postal Service's TFP tables, the Commission refers to a single filing in Docket No. N2010-1, stating that it provides the details of "the current TFP methodology."⁷ Order No. 4257 at 207; Order No. 4258 at 58. The Commission further states that it considers "this methodology as an accepted analytical principle" and "any future changes to this methodology are subject to Commission review and approval through the rulemaking process appearing in existing § 3050.11". *Id.* I acknowledge the importance of both the reference to the methodological document and the clarification of its legal status. However, I have some additional observations on the subject as described below.

First, the Postal Service initiated Docket No. N2010-1 pursuant to 39 U.S.C. § 3661 where it requested the Commission to "issue an advisory opinion" regarding the "elimination of Saturday delivery."⁸ The TFP methodology was not in the scope of the Postal Service's initial request filed in this docket, and was not part of the discussion in the Commission's advisory opinion.⁹ The Postal Service provided this filing with the TFP methodology as one of the numerous responses to the parties' interrogatories. Even putting legal issues aside, for any person interested in TFP methodology, it is quite problematic, if not impossible, to find this document either on the Commission's website or online by using internet-searching tools. Considering the existing importance of TFP indexes for measuring operational efficiency and the proposed use of TFP

⁷ See Docket No. N2010-1, Responses of the United States Postal Service to MPA Interrogatories MPA/USPS-T2-2 - 7.a.-c., 8-12, Redirected from Witness Corbett, June 23, 2010, file "MPA.T2.3.b.TFP.Formulas.pdf."

⁸ Docket No. N2010-1, Notice and Order Concerning a Postal Service Request for an Advisory Opinion on Changes in the Nature of Postal Services, April 1, 2010 at 1 (Order No. 436). *See also* Request of the United States Postal Service for an Advisory Opinion on Changes in the Nature of Postal Services, March 30, 2010.

⁹ See Docket No. N2010-1, Advisory Opinion on Elimination of Saturday Delivery, March 24, 2011.

growth to determine an operational efficiency-based authority, it would be very useful to have the TFP methodological documentation easily available on the Commission's website (e.g. in a special directory).

Second, as noted in a report on TFP provided by the Christensen Associates, which accompanies the Postal Service's initial comments in this docket, over the years, "there have been significant changes" to "the ways in which the TFP methods are implemented." Considering the proposition that since the adoption of the TFP as a "productivity performance measure" by the Postal Service, "the underlying conceptual framework has remained the same," the ongoing changes to TFP-related methods most likely do not require a special rulemaking. However, for transparency reasons, and to keep the Commission and the general public informed about all recent updates, it will be important to accompany annual TFP tables with a summary of changes to the TFP methodology and calculation methods. As I noted in my initial declaration, such a documentation already accompanies other periodic reports, including the annual Market Dominant Demand Analysis.¹⁰

IV. USE OF TFP GROWTH FOR AN OPERATIONAL EFFICIENCY-BASED STANDARD

In Order No. 4258, the Commission sets "an operational efficiency-based standard," which requires that "the average annual TFP growth over the most recent 5 years met or exceeded 0.606 percent." Order No. 4258 at 120.¹¹ If operational efficiency measured as the 5-year average annual TFP growth and evaluated as part of the Annual Compliance Determination (ACD), satisfies this criterion, the Postal Service becomes eligible for an additional 0.75 percentage points "of rate authority per class of mail per calendar year." *Id.* at 62 and 120. The Commission determined the standard of 0.606 using data for the most recent 5-years of the PAEA era, from FY 2011 to

¹⁰ See e.g., Postal Service Econometric Estimates of Demand Elasticity for All Postal Products, FY 2017, January 2019, file "Changes.vs.2017(md).docx." (Changes to Econometric Demand Equations for Market Dominant Products since January 2017).

¹¹ Note that the proposed rule sets a standard of 0.6 percent. Order No. 4258, Attachment A at 24.

FY 2016. *Id.* at 62. The Commission notes that the “use of a rolling 5-year average for TFP growth should allow enough time for the effects of any long-term investments to appear in the TFP calculations.” *Id.* The Commission anticipates this approach would be an incentive for the Postal Service “to achieve efficiency gains sufficient to contribute to [its] financial stability.” *Id.* “The Commission may reevaluate [the operational efficiency-based] standard after 5 years upon “the expiration of the proposed supplemental rate authority.” The purpose of the proposed approach is to tie a “bonus-type” rate authority with efficiency of the Postal Service. However, I have multiple concerns regarding potential effectiveness of its practical implementation as proposed in Order No. 4258.

First, per the Commission’s proposal, during a 5-year period, non-conditional supplemental rate authority of 2 percent will be available on an annual basis to all Market Dominant Mail classes, without any consideration of cost reductions, efficiency increases or performance improvements. Order No. 4258 at. 42. Moreover, an additional 2 percent of rate authority will be specifically available to non-compensatory classes that, as a whole, fail to cover attributable costs. *Id.* at. 84. Consequently, it appears that “poor performance” (in terms of cost coverage) results in an additional 2 percent of rate authority, while the increase in efficiency results in an additional rate authority of 0.75 percent only. I think that compared to approximately 6 percent of the combined rate authority for non-compensatory classes (that also includes a CPI-U adjustment and supplemental rate authority), an operational efficiency-based authority of 0.75 percent is too small, and would not provide enough incentive to achieve efficiency gains. Although analysis and recommendations about the exact percentage of additional rate authorities are not in the scope of the current declaration, I strongly believe that to promote efficiency incentives, the bonus-type rate authorities (efficiency-based or performance-based) should be materially higher than non-conditional rate authorities (such as the proposed supplemental authority).

Second, Christensen Associates generally warned that “TFP does not provide a ‘benchmark’ that specifies the degree to which TFP can increase if best practices are adopted.” Christensen TFP Report at 1. The Commission quantified the operational efficiency-based standard using average TFP growth in the most recent 5 years. Order

No. 4258 at 62. Since average TFP growth measured during a certain period of time should capture (at least partially) TFP trends, the Commission's approach is consistent with the recommendations provided in both my initial declaration and the Christensen TFP Report.¹² However, in Order No. 4257, the Commission noted "a measurable slowdown in efficiency growth in recent years." Order No. 4257 at 219. The Commission analysis shows that "the average annual TFP growth rate for the PAEA time period" was 0.65 percent (and this is higher than in the recent 5 years when it was 0.606, on average). *Id.* at 226. The TFP growth in the PAEA era was still lower than in the "10 years immediately preceding the PAEA", when it was 1.03 percent. *Id.* Therefore, the Commission concluded that the Postal Service had not maximized operational efficiency gains in a PAEA era. Order No. 4257 at 226. Considering this Commission finding, as well as a recent slowdown in a TFP growth, it is reasonable to conclude that the operational efficiency-based standard should be higher than the average TFP growth in the most recent 5 years.

Third, by using a 5-year average TFP growth, the Commission intends to capture "any long-term investments." Order No. 4258 at 62. Such an assertion most likely assumes that the Postal Service makes the investments evenly over the years and/or return on the investment will be visible relatively fast. This, however, is not necessarily true. As discussed in my initial declaration, innovations do not lead to immediate productivity growth, and the economic impact of technological improvements might not be visible for a number of years after making the investments. Bzhilyanskaya Decl. at 8. The Christensen Associates also warned that TFP "has substantial year-to-year variations due to business cycles, the pattern of investment in new technologies, and strategic changes in business plans." Christensen TFP Report at 1. Consequently, it is likely that any investments for technological improvements would result in a lower 5-year-average TFP growth than it could be without these investments. I would suggest

¹² In my initial declaration, I noted that TFP trends should better reflect long-term productivity than annual TFP indexes. See Bzhilyanskaya Declaration at 9. Christensen Associates stated, "[w]hen using TFP as an evaluation tool of management, it is important to look at TFP trends over several years rather than isolated annual TFP results." Christensen TFP Report at 1.

that in order to use an average TFP growth for efficiency-driven incentives, this growth should be measured during a longer period, such as 7-8 years.

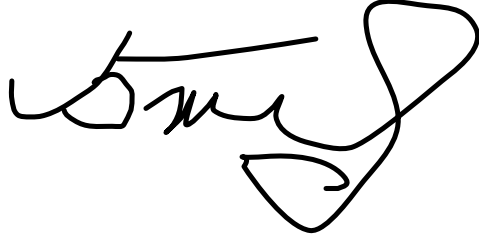
V. CONCLUSION

In Order No. 4258, to comply with 39 C.F.R. § 3050.2, the Commission requested the Postal Service to support the annual TFP tables with the “documentation of periodic reports...to ensure that TFP is measured and calculated in a transparent manner.” Order No. 4258 at 63. I find this new requirement should significantly increase transparency of the Postal Service’s TFP filings. In this declaration, I also provide a few specific suggestions regarding the documentation related to TFP filings. First, I suggest that the methodological description should be available and easily accessible on the Commission’s website. Second, I recommend accompanying annual TFP tables with the summary of changes to the TFP methodology and calculation methods.

In Order No. 4258, the Commission proposes a number of changes to 39 C.F.R. rules including an addition of subsections § 3010.180 and § 3010.181 related to operational efficiency-based rate authority. Such authority “shall be allocated for each class of mail if the Postal Service’s average annual [TFP] growth over the most recent 5 years meets or exceeds 0.6 percent as determined by the most recent” ACD. Order No. 4258 at 24. In this proposal, the Commission ties a bonus-type rate authority with the operational efficiency, which I find very important. However, I still discuss the concerns related to the amount of performance-based rate authority and the choice of years for which TFP growth (used as a standard for this authority) is calculated.

VI. VERIFICATION

I, Lyudmila Y. Bzhilyanskaya, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on March 1, 2018.

A handwritten signature in black ink, consisting of stylized cursive letters, likely representing the name Lyudmila Y. Bzhilyanskaya.

Lyudmila Y. Bzhilyanskaya